

IAP13 Rec'd PCT/PTO 21 SEP 2006

U. S. PATENT AND TRADEMARK OFFICE  
U. S. DEPARTMENT OF COMMERCE

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

21412YP

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

**10/593659**

INTERNATIONAL APPLICATION NO.

PCT/US05/009874

INTERNATIONAL FILING DATE

24 March 2005

PRIORITY DATE CLAIMED

26 March 2004

TITLE OF INVENTION

METHOD AND BIOMARKERS FOR DETECTING TUMOR ENDOTHELIAL CELL PROLIFERATION

APPLICANT(S) FOR DO/EO/US

James Hardwick, Hongyue Dai, John R. Lamb, Laura Sepp-Lorenzino, Michael E. Severino, Chunsheng Zhang

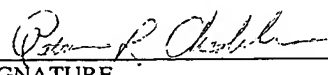
**Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:**

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures [35 U.S.C. 371(f)]. The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected (PCT Article 31).
5. ☒ A copy of the International Application as filed [35 U.S.C. 371(c)(2)]
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☒ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed [35 U.S.C. 371(c)(2)].
  - a. ☐ is attached hereto
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 [35 U.S.C. 371(c)(3)].
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 [35 U.S.C. 371(c)(3)].
9. ☐ An oath or declaration of the inventor(s) [35 U.S.C. 371(c)(4)].
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 [35 U.S.C. 371(c)(5)].

**Items 11 to 20 below concern other document(s) or information included:**

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☒ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
18. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☐ Other items or information:

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U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <div style="font-size: 24pt; font-weight: bold;">10/593659</div>		INTERNATIONAL APPLICATION NO. PCT/US05/009874		ATTORNEY'S DOCKET NUMBER 21412YP	
The following fees are submitted:				CALCULATIONS	PTO USE ONLY
21. <input checked="" type="checkbox"/> Basic national fee.....\$300				\$300.00	
22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4).....\$0 All other situations.....\$200					
23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4).....\$0 Search fee [37 CFR 1.445(a)(2)] has been paid on the international application to the USPTO as an International Searching Authority.....\$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB .....\$400 All other situations.....\$500				\$500.00	
<b>TOTAL OF 21, 22 and 23=</b>				\$800.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	0 /50	0 = 0	X \$250.00	\$0.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date [37 CFR 1.492(e)].					
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total Claims	16 - 20 =	0	X \$50.00	\$0.00	
Independent Claims	6 - 3 =	3	X \$200.00	\$600.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360.00		
<b>TOTAL OF ABOVE CALCULATIONS (SUBTOTAL)</b>				=	\$1,400.00
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				+	
<b>TOTAL NATIONAL FEE</b>				=	\$1,400.00
Fee for recording the enclosed assignment [37 CFR 1.21(h)]. The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property.				+	
<b>TOTAL FEES ENCLOSED</b>				=	\$1,400.00
				Amount to be refunded:	
				Amount to be charged:	
a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed. b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>13-2755</u> in the amount of <u>\$1,400.00</u> to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to the Deposit Account No. <u>13-2755</u> . A duplicate copy of this sheet is enclosed.					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive [37 CFR 1.137(a) or (b)] must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO: <div style="border: 1px solid black; padding: 2px; display: inline-block;">Customer No. 000210</div>					
MERCK & CO., INC. Patent Department, RY60-30 P.O. Box 2000 126 East Lincoln Avenue Rahway, New Jersey 07065-0970			 SIGNATURE		
DATE: <u>September 21, 2006</u> PHONE #: <u>(732) 594-5738</u>			Patricia L. Chisholm NAME		
			45,822 REGISTRATION NUMBER		

10/5 93 659  
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**Page 1A of TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING  
A FILING UNDER 35 U.S.C. 371**

**Attorney Docket No.:** 21412YP  
**International Appln No.:** PCT/US05/009874  
**International Filing Date:** 24 March 2005  
**Priority Date:** 26 March 2004  
**Title:** METHOD AND BIOMARKERS FOR DETECTING  
TUMOR ENDOTHELIAL CELL PROLIFERATION

**Inventors:** James Hardwick  
Hongyue Dai  
John R. Lamb  
Laura Septt-Lorenzino  
Michael E. Severino  
Chunsheng Zhang

EXPRESS MAIL CERTIFICATE	
DATE OF DEPOSIT	<u>September 21, 2006</u>
EXPRESS MAIL NO.	<u>EL 989585773 US</u>
I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS EXPRESS MAIL "POST OFFICE TO ADDRESSEE" ON THE ABOVE DATE IN AN ENVELOPE ADDRESSED TO COMMISSIONER FOR PATENTS P.O. BOX 1450, ALEXANDRIA, VIRGINIA 22313-1450.	
MAILED BY	<u>Christin Cuffe</u> DATE <u>9-21-06</u>